

REMARKS

After entry of this amendment, Claims 1 – 62 will be pending. Applicants thank the Examiner for his indication that claims 3, 31-34, 52 and 53 would be allowable if rewritten in independent format. New independent claims 55-62 have been added to capture allowable subject matter. (New claims 56-62 correspond to re-written forms of claims 3, 31-34, 52 and 53, respectively.) No new matter has been added. Favorable reconsideration and allowance of the pending claims are respectfully requested in light of the following Remarks.

Rejection of Claims 1, 2, 4-10, 12-30, 35-51 and 54 under 35 U.S.C. §102

The Examiner rejected claims 1, 2, 4-10, 12-30, 35-51 and 54 under 35 U.S.C. §102(e) as anticipated by Parekh et al (U.S. Patent No. 6,604,754). Applicants respectfully traverse the rejection.

Rejections under 35 U.S.C. § 102 require that a single reference disclose each and every claim element either expressly or inherently. *In re Roberson et al.*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a single reference must describe the subject matter claimed in the patent with sufficient detail and clarity to demonstrate that the subject matter existed and that a person of ordinary skill in the art would have recognized its existence in the asserted prior art reference. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 545 (Fed. Cir. 1998). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. See MPEP §2131.

The Office Action fails to meet this burden. Parekh does not teach or disclose all elements of the claimed invention. As one example only, and without limitation, in comparison with the high throughput and versatile nature of the present invention, Parekh discloses only in terms of so-called “supported gels.” (Col. 6, lines 2-4). According to Parekh, such supported gels involve the casting of the gel on a support that is functionalized with a bifunctional linker such as methylacryl-oxypropyltrimethoxysilane. (Col. 6, lines 32 – 36). Parekh limits its discussion of excision only to “supported gels” (See e.g. Col. 6, lines 43-44; Col. 13, lines 14-15), and this limits its usefulness for more diverse, high throughput uses.

In contrast, the present invention comprises apparatus and methods for highly automated excision of one or more samples from diverse sample media by means of rapid, accurate, high

throughput methods and steps as claimed. The present invention incorporates robotics and software/computing technology to improve the throughput and rate of the analysis of diverse samples comprised on diverse media. Moreover, the present invention comprises numerous other elements not disclosed in Parekh. As some examples only, in some embodiments, without limitation, the invention comprises apparatus or methods with: (1) a plurality of excision cutters, which can be associated with samples of interest (e.g., Claims 4-5); (2) means to derive and apply calibration factors for precise sample handling (e.g., Claim 8); (3) stretch-resistant substrates (e.g., Claim 13); and (4) deposition of excised samples with associated fluid volumes, along with means for capping and sequential processing of media and receptacles (e.g., Claims 18 – 22). In addition, in some embodiments, without limitation, the present invention comprises apparatus or methods with cutting tips of particularized features and processing means associated with those tips (e.g., Claims 23 – 30, 44-46, 49-51). Finally, in some embodiments, without limitation, the present invention comprises apparatus or methods with particularized means to eject samples or manage fluid flow and the position of the excision tools (e.g., Claims 35 – 38). The Office Action does not identify how these and other elements of the claimed invention are purportedly taught or disclosed in Parekh, nor do Applicants believe that they are. Thus, Applicants respectfully assert that Parekh does not anticipate the present invention and specifically provides insufficient detail or clarity to demonstrate that the subject matter claimed in the present invention may be found in the cited reference. For at least these reasons, Applicants respectfully assert that Claims 1, 2, 4-10, 12-30, 35-51 and 54 are allowable over the applied art, and withdrawal of the rejection is respectfully requested.

Rejection of Claim 1 under 35 U.S.C. §102(b)

The Examiner rejected claim 1 under 35 U.S.C. §102(b) as anticipated by Butts et al (U.S. Patent No. 4,684,244). The rejection is respectfully traversed.

As discussed above, rejections under 35 U.S.C. § 102 require that a single reference disclose each and every claim element either expressly or inherently. *In re Roberson et al.*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a single reference must describe the subject matter claimed in the patent with sufficient detail and clarity to demonstrate that the subject matter existed and that a person of ordinary skill in the art would have recognized its existence in the asserted prior art reference. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 545 (Fed. Cir.

1998). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *See MPEP §2131.*

The present invention comprises an apparatus for automated excision of one or more samples from a sample media, further comprised of a device for electronically capturing one or more traits respectively associated with one or more samples present in a sample media and a microprocessor linked to the capture device for analyzing the one or more electronically captured traits of the sample, with access to and comparison with a database of reference traits in order to identify one or more samples of interest as a result of the comparison. In contrast, Butts does not disclose an apparatus for automated excision of samples with features set out in the present Claim 1. Instead, Butts discloses only a method for scanning optical density patterns using a densitometer or the like (e.g., Col. 3, lines 51-52), not an apparatus for automated excision of samples, like the present invention. Moreover, unlike the present invention, the method disclosed in Butts does not perform a comparison to a database of reference traits, but rather operates only in relation to a single pre-programmed minimum optical density value. (See e.g., Col. 6, lines 12-19, cited by the Examiner). Because it does not teach or disclose each and every feature of the claimed invention, Butts does not anticipate the invention claimed in Claim 1. Consequently, Applicants respectfully request that this rejection be withdrawn.

Rejection of Claim 11 under 35 U.S.C. §103

The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over Parekh et al as applied to claim 1 and further in view of either Anderson (U.S. Patent No. 5,993,627) or Sarrine et al (U.S. Patent No. 4,954,237). This rejection is respectfully traversed.

MPEP Section 2143 sets forth the basic requirements for the Patent and Trademark Office to establish *prima facie* obviousness as follows: “To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the

prior art, not in the applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); see also *MPEP 2142*.

The deficiencies of Parekh are discussed above and are incorporated and reasserted herein. In view of the foregoing, it is respectfully submitted that the Office Action fails to establish a *prima facie* case of obviousness. *See MPEP §2143*. For at least these reasons alone, the rejections under Section 103(a) should be withdrawn, and Claim 11 should be allowed.

CONCLUSION

For at least these reasons, Applicants respectfully assert that this application is now in condition for allowance. It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper.

However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge account number 18-0013 in the name of Rader, Fishman and Grauer PLLC.

If the Examiner has any questions or comments, he is kindly urged to call the undersigned to facilitate prosecution.

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Respectfully submitted,

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